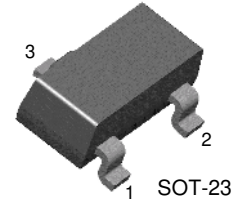


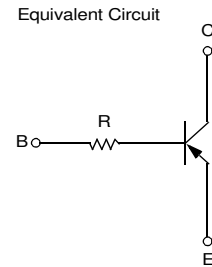
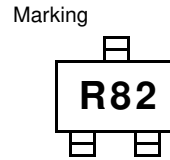
# FJV4112R

## Switching Application (Bias Resistor Built In)

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R=47KΩ)
- Complement to FJV3112R



1. Base 2. Emitter 3. Collector



## PNP Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

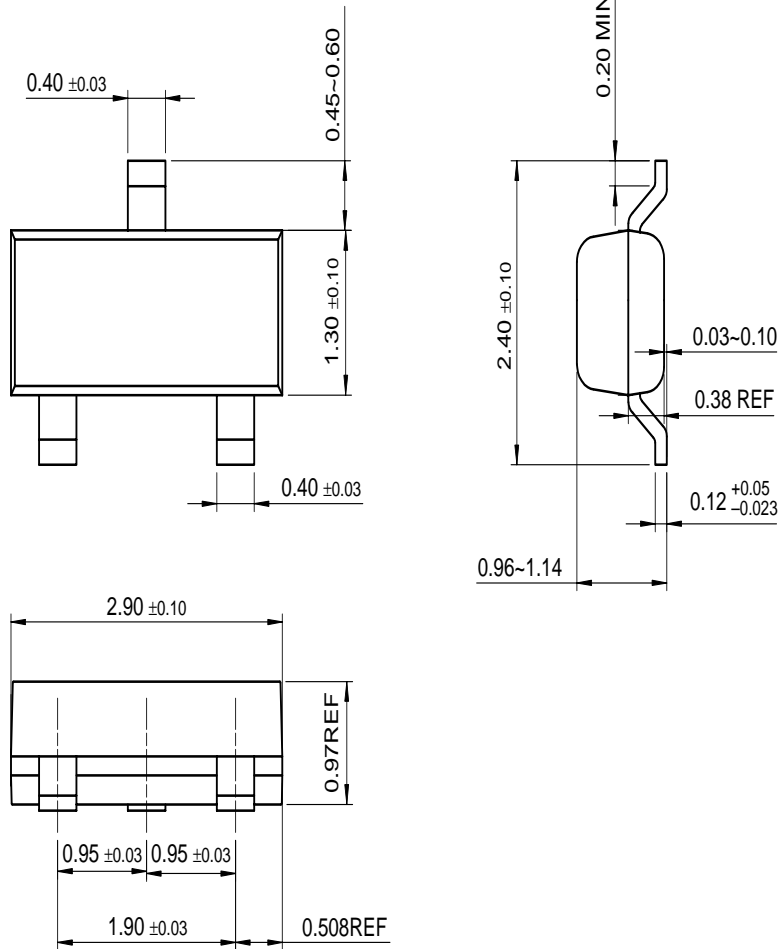
| Symbol    | Parameter                   | Value     | Units            |
|-----------|-----------------------------|-----------|------------------|
| $V_{CBO}$ | Collector-Base Voltage      | -40       | V                |
| $V_{CEO}$ | Collector-Emitter Voltage   | -40       | V                |
| $V_{EBO}$ | Emitter-Base Voltage        | -5        | V                |
| $I_C$     | Collector Current           | -100      | mA               |
| $P_C$     | Collector Power Dissipation | 200       | mW               |
| $T_J$     | Junction Temperature        | 150       | $^\circ\text{C}$ |
| $T_{STG}$ | Storage Temperature         | -55 ~ 150 | $^\circ\text{C}$ |

### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

| Symbol        | Parameter                            | Test Condition                                       | Min. | Typ. | Max. | Units         |
|---------------|--------------------------------------|--|------|------|------|---------------|
| $BV_{CBO}$    | Collector-Base Breakdown Voltage     | $I_C = -100\mu\text{A}, I_E = 0$                     | -40  |      |      | V             |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage  | $I_C = -1\text{mA}, I_B = 0$                         | -40  |      |      | V             |
| $I_{CBO}$     | Collector Cut-off Current            | $V_{CB} = -30\text{V}, I_E = 0$                      |      |      | -0.1 | $\mu\text{A}$ |
| $h_{FE}$      | DC Current Gain                      | $V_{CE} = -5\text{V}, I_C = -1\text{mA}$             | 100  |      | 600  |               |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -10\text{mA}, I_B = -1\text{mA}$              |      |      | -0.3 | V             |
| $C_{ob}$      | Output Capacitance                   | $V_{CB} = -10\text{V}, I_E = 0$<br>$f = 1\text{MHz}$ |      | 5.5  |      | pF            |
| $f_T$         | Current Gain Bandwidth Product       | $V_{CE} = -10\text{V}, I_C = -5\text{mA}$            |      | 200  |      | MHz           |
| R             | Input Resistor                       |  | 32   | 47   | 62   | K $\Omega$    |

# Package Dimensions

## SOT-23



Dimensions in Millimeters

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|                                      |                     |                    |                     |                 |
|--------------------------------------|---------------------|--------------------|---------------------|-----------------|
| ACE <sup>x</sup> ™                   | FACT™               | ImpliedDisconnect™ | PACMAN™             | SPM™            |
| ActiveArray™                         | FACT Quiet series™  | ISOPLANAR™         | POP™                | Stealth™        |
| Bottomless™                          | FAST®               | LittleFET™         | Power247™           | SuperSOT™-3     |
| CoolFET™                             | FAST <sub>r</sub> ™ | MicroFET™          | PowerTrench®        | SuperSOT™-6     |
| CROSSVOL™                            | FRFET™              | MicroPak™          | QFET™               | SuperSOT™-8     |
| DOME™                                | GlobalOptoisolator™ | MICROWIRE™         | QS™                 | SyncFET™        |
| EcoSPARK™                            | GTO™                | MSX™               | QT Optoelectronics™ | TinyLogic™      |
| E <sup>2</sup> CMOS™                 | HiSeC™              | MSXPro™            | Quiet Series™       | TruTranslation™ |
| EnSigna™                             | I <sup>2</sup> C™   | OCX™               | RapidConfigure™     | UHC™            |
| Across the board. Around the world.™ |                     | OCXPro™            | RapidConnect™       | UltraFET®       |
| The Power Franchise™                 |                     | OPTOLOGIC®         | SILENT SWITCHER®    | VCX™            |
| Programmable Active Droop™           |                     | OPTOPLANAR™        | SMART START™        |                 |

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|--------------------------|------------------------|---|
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